



OIPE

RAW SEQUENCE LISTING

DATE: 01/30/2002

PATENT APPLICATION: US/10/021,577

TIME: 16:07:38

Input Set : A:\00-87.seq.txt

Output Set: N:\CRF3\01302002\J021577.raw

ENTERED

```

3 <110> APPLICANT: Sheppard, Paul O.
4   Bishop, Paul D.
6 <120> TITLE OF INVENTION: Seleno-cysteine Containing Protein
7   Zsnk13
9 <130> FILE REFERENCE: 00-87
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/021,577
C--> 11 <141> CURRENT FILING DATE: 2001-12-12
11 <150> PRIOR APPLICATION NUMBER: 60/256,676
12 <151> PRIOR FILING DATE: 2000-12-18
14 <160> NUMBER OF SEQ ID NOS: 6
16 <170> SOFTWARE: FastSEQ for Windows Version 4.0
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 1355
20 <212> TYPE: DNA
21 <213> ORGANISM: Agkistrodon piscivorus piscivorus
23 <400> SEQUENCE: 1
24 ggatccaggc tgaattcggc acgaggtggt atggagacgc cgctgctttg gctgccgctg 60
25 ctgctgctgg ggctgctctc gcccttggcg ccgctgcgcg ccgtgcagct cgaccggagc 120
26 cgcctgcagt ggctggcccc cggaaggtg gagagctgtg gaggatgacg cttgaaccgc 180
27 ctgccagagg taaaggcctt tctcaacgaa gacctgcctt tgtaccacaa catggacttg 240
28 aagtacctgg ctggagcgga cctgagctc atcctgctca acattcaatt tgaagaactt 300
29 cagagaatcc cattgagtga catgagccgg gaagagataa accagctgat gcaagaattg 360
30 ggattctacc ggaagacac gccggactcc cctgttccc atgcttttca aatggcgctt 420
31 gctaattcac tgccatcaga tgtggaagca atgaagaaca gacgtgacga agagaaaaag 480
32 ggggcggggg gtccagacct atagaattca acgtgctctg cttgtgaagg gtgcctgtta 540
33 gaaagaatgg gaagtctcag ggcattggca atatctaaat aatctgcaac catatagata 600
34 agatctcctg tggttcacac acggtggaat tgtgtgctcg gagaaattaa catttagaga 660
35 agattcaaag gctgcaaact tttgcttaag gagaagaact tgttgccctc agaagcaaaa 720
36 tgtgcaaaac aaagacagcc acatatatgc aaccccgggc cagttacaga cagcccttga 780
37 cttacgacta caatcgagac tggaaaaaac gttgttaagc atgtgcagtt gtcaagcaag 840
38 acaccacatg ggctgtgatt gtgactttcc ccgctgctt cgccacttgc tttgtgcttg 900
39 tcggaagccg gttgggaaag gttgcaaata gcgactgtgt gacttgacga acaccgactg 960
40 tgggtgaagg caagccaaca accaacaata acaacagccc ttgtcaaata gtcgtaagt 1020
41 aagggctgcc tgtaactcgg acgaaattga ctggaagaag cctcaaggga ttccgccctt 1080
42 catccaaga ccggaatcct gcacaaggca ccacacaagg gtccactccc gtgaccagca 1140
43 ctttccctcc aggtgtgcct cacctgtgca ggacaggatg aagccctctg cagaaagctt 1200
44 ttgctgctga ggggtgatag acacgtctc tggggctggg agcgcagcct gctggggagc 1260
45 aggtcgccaa accccaactg gtttaggata gtaacaataa agttgccttc gtcaaccacc 1320
46 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 1355
48 <210> SEQ ID NO: 2
49 <211> LENGTH: 110
50 <212> TYPE: PRT
51 <213> ORGANISM: Agkistrodon piscivorus piscivorus

```

RAW SEQUENCE LISTING DATE: 01/30/2002
PATENT APPLICATION: US/10/021,577 TIME: 16:07:38

Input Set : A:\00-87.seq.txt
Output Set: N:\CRF3\01302002\J021577.raw

```

53 <220> FEATURE:
54 <221> NAME/KEY: VARIANT
55 <222> LOCATION: (46)...(46)
56 <223> OTHER INFORMATION: Xaa is selenocysteine.
58 <400> SEQUENCE: 2
59 Met Glu Thr Pro Leu Leu Trp Leu Pro Leu Leu Leu Gly Leu Leu
60 1 5 10 15
61 Ser Ala Leu Ala Pro Leu Arg Ala Val Gln Leu Asp Arg Ser Arg Leu
62 20 25 30
63 Gln Trp Leu Ala Arg Gly Lys Val Glu Ser Cys Gly Gly Xaa Arg Leu
64 35 40 45
65 Asn Arg Leu Pro Glu Val Lys Ala Phe Leu Asn Glu Asp Leu Pro Leu
66 50 55 60
67 Tyr His Asn Met Asp Leu Lys Tyr Leu Ala Gly Ala Asp Pro Glu Leu
68 65 70 75 80
69 Ile Leu Leu Asn Ile Gln Phe Glu Glu Leu Gln Arg Ile Pro Leu Ser
70 85 90 95
71 Asp Met Ser Arg Glu Glu Ile Asn Gln Leu Met Gln Glu Leu
72 100 105 110
75 <210> SEQ ID NO: 3
76 <211> LENGTH: 471
77 <212> TYPE: DNA
78 <213> ORGANISM: Artificial Sequence
80 <220> FEATURE:
81 <223> OTHER INFORMATION: This degenerate nucleotide sequence encodes the
82 amino acid sequence of SEQ ID NO:2.
84 <221> NAME/KEY: variation
85 <222> LOCATION: (1)...(471)
86 <223> OTHER INFORMATION: N is A, G, C, or T.
88 <400> SEQUENCE: 3
89 atggaracnc cnytnytntg gytncncnytn ytnytnytn gnytnytnws ngcnytnngcn 60
90 ccnytnmgng cngtncaryt ngaymgnwsn mgnytncart ggytngcnmg nggnaargtn 120
91 garwsntgyg gnggnnnmg nytnaaymgn ytnccngarg tnaargcntt yytnaaygar 180
92 gayytnccny tntaycayaa yatggayytn aartayytn gngngcnga yccngarytn 240
93 athytnytna ayathcartt ygargarytn carmgna thc cnytnwsnga yatgwsnmgn 300
94 gargaratha aycarytnat gcargarytn ggnttytaym gnaargayac nccngaywsn 360
95 ccngtncngc aygcnttyca ratggcncn gcnaaywsny tnccnwsnga ygtngargcn 420
96 atgaaraaym gnmngncnaa rgaraaraar gngcngngng gnccngayyt n 471
98 <210> SEQ ID NO: 4
99 <211> LENGTH: 48
100 <212> TYPE: DNA
101 <213> ORGANISM: Artificial Sequence
103 <220> FEATURE:
104 <223> OTHER INFORMATION: Selenocysteine insertion motif.
106 <221> NAME/KEY: variation
107 <222> LOCATION: (5)...(14)
108 <223> OTHER INFORMATION: N is A, T, G, or C.
110 <221> NAME/KEY: variation
111 <222> LOCATION: (15)...(16)

```

RAW SEQUENCE LISTING

DATE: 01/30/2002

PATENT APPLICATION: US/10/021,577

TIME: 16:07:38

Input Set : A:\00-87.seq.txt

Output Set: N:\CRF3\01302002\J021577.raw

112 <223> OTHER INFORMATION: N is A, T, G, C, or absent.
 114 <221> NAME/KEY: variation
 115 <222> LOCATION: (19)...(34)
 116 <223> OTHER INFORMATION: N is A, T, G, or C.
 118 <221> NAME/KEY: variation
 119 <222> LOCATION: (35)...(44)
 120 <223> OTHER INFORMATION: N is A, T, G, C, or absent.
 122 <221> NAME/KEY: variation
 123 <222> LOCATION: (45)...(45)
 124 <223> OTHER INFORMATION: N is A, T, G, or C.
 126 <221> NAME/KEY: variation
 127 <222> LOCATION: (48)...(48)
 128 <223> OTHER INFORMATION: N is A, T, G, or C.
 130 <400> SEQUENCE: 4
 131 augannnnnnn nnnnnnaann nnnnnnnnnn nnnnnnnnnn nnnnnngan 48
 133 <210> SEQ ID NO: 5
 134 <211> LENGTH: 40
 135 <212> TYPE: DNA
 136 <213> ORGANISM: Artificial Sequence
 138 <220> FEATURE:
 139 <223> OTHER INFORMATION: Selenocysteine insertion element.
 141 <400> SEQUENCE: 5
 142 atgaagccct ctgcagaaag cttttgctgc tgagggtgga 40
 144 <210> SEQ ID NO: 6
 145 <211> LENGTH: 44
 146 <212> TYPE: DNA
 147 <213> ORGANISM: Artificial Sequence
 149 <220> FEATURE:
 150 <223> OTHER INFORMATION: Selenocysteine insertion element.
 152 <400> SEQUENCE: 6
 153 atgaagccct ctgcagaaag cttttgctgc tgagggtgga taga 44

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/021,577

DATE: 01/30/2002

TIME: 16:07:39

Input Set : A:\00-87.seq.txt

Output Set: N:\CRF3\01302002\J021577.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:63 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:89 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:90 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:93 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:95 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4